



2684  
JPW

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Seok-Jin HAM

Examiner: Nguyen, Tu X.

Serial No.: 09/366,299

Group Art Unit: 2684

Filed: August 2, 1999

Docket: 678-318

For: BILLING METHOD  
IN ELECTRONIC SWITCH  
IN A CELLULAR NETWORK

Dated: February 10, 2006

Mail Stop PETITION  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION TO WITHDRAW HOLDING OF ABANDONMENT  
UNDER 37 C.F.R. §1.181**

Sir:

Applicant respectfully requests that the above-identified application be revived as a pending application, and hereby petitions that the abandonment set forth in the Notice of Abandonment mailed April 20, 2005 be withdrawn.

An Office Action was mailed on May 7, 2004 in connection with this application. Applicant duly responded to the Office Action by filing a Response on August 6, 2004. In addition, at the Examiner's request, applicant resent a copy of the Response dated August 6, 2004 to the Examiner on March 16, 2005. Applicant respectfully submits herewith copies of the following documents:

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to the: Mail Stop PETITION, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 10, 2006

Dated: February 10, 2006

  
Thomas W. McNally

1. Notice of Abandonment dated April 20, 2005;
2. Response which bears a Certificate of Mailing Under 37 C.F.R. §1.8(a) dated August 6, 2004;
3. Facsimile cover page and transmission showing that a copy of the Response dated August 6, 2004 was resent to the Examiner on March 16, 2005; and
4. Interview Summary dated September 2, 2005.

Since Applicant properly filed the Response in a timely fashion which bears a Certificate of Mailing signed by the Applicant's representative, Paul J. Farrell, as in an ordinary course of business and resent a copy of the Response dated August 6, 2004 to the Examiner prior to the issuance of the Notice of Abandonment and further in view of the Interview Summary dated September 2, 2005, it is believed that the Notice of Abandonment was improperly issued and should be withdrawn. It is respectfully requested that the application be revived as a pending application.

It is Applicant's belief that no fee should be required since the Notice of Abandonment was improperly issued through no fault of Applicant. If a fee is due, please charge said fee to Deposit Account No. 04-1121. TWO (2) COPIES OF THIS SHEET ARE ENCLOSED.

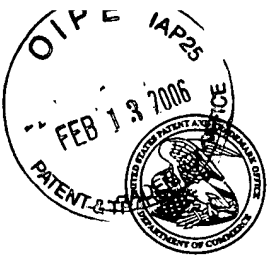
Respectfully submitted,



Paul J. Farrell  
Registration No. 33,494  
Attorney for Applicants

**DILWORTH & BARRESE, LLP**  
333 Earle Ovington Boulevard  
Uniondale, New York 11553  
(516) 228-8484

PJF/JFG/vjs

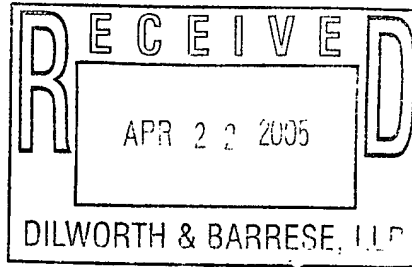


UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/366,299	08/02/1999	SEOK-JIN HAM	678-318(P882	2887

28249 7590 04/20/2005  
DILWORTH & BARRESE, LLP  
333 EARLE OVINGTON BLVD.  
UNIONDALE, NY 11553



EXAMINER
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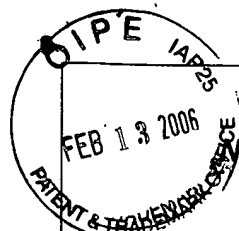
NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



# Notice of Abandonment

Application No.

09/366,299

Examiner

Tu X Nguyen

Applicant(s)

HAM, SEOK-JIN

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 07 May 2004.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection. (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b) ☐ The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☒ The reason(s) below:

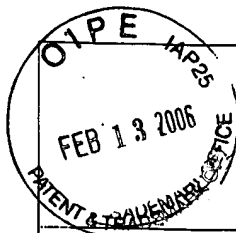
Mr. Paul Farrell confirmed this case is abandoned.

TN  
3/16/05

703 305 3427

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



# Interview Summary

Application No.

09/366,299

Applicant(s)

HAM, SEOK-JIN

Examiner

Tu X Nguyen

Art Unit

2684

All participants (applicant, applicant's representative, PTO personnel):

(1) Tu X Nguyen.

(3) \_\_\_\_\_

(2) Paul Farrell.

(4) \_\_\_\_\_

Date of Interview: 02 September 2005.

Type: a) ☒ Telephonic b) ☐ Video Conference

c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: n/a.

Identification of prior art discussed: n/a.

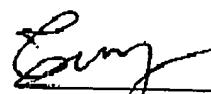
Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The Applicants representative said that he never made confirmation statement for this case is abandonment. Since the abandonment was sent on March, 2005, the Examiner cannot remember or recall that whether the Applicants representative did or did not confirm the abandonment, it could have been a mistake from the Examiner.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

 9/2/05  
Examiner's signature, if required



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REGISTERED PATENT AGENT  
ARTHUR D. DAWSON

\*REGISTERED IN CONNECTICUT

## FACSIMILE TRANSMISSION

DATE: March 16, 2005

TO: Examiner: T. X. Nguyen  
Fax No.: (703) 746-7762

FROM: Douglas M. Owens, Esq.  
Dilworth & Barrese, LLP

Total Number of Pages (including this cover sheet): 8

RE: Attorney Docket: 678-318 (P8824)

Applicant: Seok-Jin HAM GROUP ART UNIT: 2684  
Serial No.: 09/366,299  
Filed: August 2, 1999 EXAMINER: T. X. Nguyen  
For: BILLING METHOD IN ELECTRONIC  
SWITCH IN A CELLULAR NETWORK

Examiner Nguyen:

Pursuant to your telephone request of today, enclosed is a copy of the Response that we filed under Certificate of Mailing dated August 6, 2004, in connection with the above-identified application.

If you have any questions, please do not hesitate to contact us.

Douglas M. Owens III

### CERTIFICATION OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Commissioner for Patents, Alexandria VA 22312-1450, Attn.: Examiner T. X. Nguyen, Fax No.: (703) 746-7762 on the date shown below.

LYNN A. STOCKLIN

Type or Print Name of Person Signing Certification

March 16, 2005

Signature

IN CASE OF INCOMPLETE OR INADEQUATE TRANSMISSION, PLEASE CALL  
(516) 228-8484

## TX RESULT REPORT

NAME: DILWORTH BARRESE  
TEL : 5162284975  
DATE: MAR.16'2005 03:05

SESSION	FUNCTION	NO.	DESTINATION STATION	DATE	TIME	PAGE	DURATION	MODE	RESULT
4689	TX	01	17037467762	MAR.16	03:03	008	00H02'00"	ECM	OK



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PAUL J. FARRELL

OF COUNSEL

ANN R. PORALSKY

## FACSIMILE TRANSMISSION

DATE: March 16, 2005

TO: Examiner: T. X. Nguyen  
Fax No.: (703) 746-7762

FROM: Douglas M. Owens, Esq.  
Dilworth & Barrese, LLP

Total Number of Pages (including this cover sheet): 8

RE: Attorney Docket: 678-318 (P8824)

Applicant: Seok-Jin HAM                      **GROUP ART UNIT: 2684**  
Serial No.: 09/366,299  
Filed: August 2, 1999                      **EXAMINER: T. X. Nguyen**  
For: BILLING METHOD IN ELECTRONIC  
SWITCH IN A CELLULAR NETWORK

Examiner Nguyen:

Pursuant to your telephone request of today, enclosed is a copy of the Response that we filed under Certificate of Mailing dated August 6, 2004, in connection with the above-identified application.

If you have any questions, please do not hesitate to contact us.

Douglas M. Owens III

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Commissioner for Patents, Alexandria VA 22312-1450, Attn.: Examiner T. X. Nguyen, Fax No.: (703) 746-7762 on the date shown below.

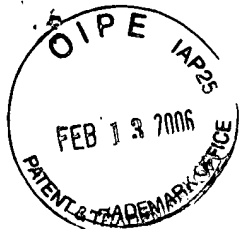
LYNN A. STOCKLIN

Type or Print Name of Person Signing Certification

March 16, 2005

  
Signature

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PATENT OFFICE DATE STAMP WILL ACKNOWLEDGE RECEIPT OF:

1. Response
2. Return Postcard

All submitted under Certificate of Mailing dated August 6, 2004.

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Applicant: Seok-Jin HAM  
Serial No.: 09/366,299  
Filed: August 2, 1999  
Group: Art Unit 2684  
Examiner: T. X. Nguyen  
For: **BILLING METHOD IN ELECTRONIC  
SWITCH IN A CELLULAR NETWORK**

Docket: 678-318 (P8824)

PJF/DMO/lah





**PATENT APPLICATION**

**Attorney Docket No.:** 678-318 (P8824)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>APPLICANT(S):</b>	Seok-Jin HAM	<b>GROUP ART UNIT:</b> 2684
<b>APPLICATION NO.:</b>	09/366,299	<b>EXAMINER:</b> T.X. Nguyen
<b>FILING DATE:</b>	August 2, 1999	<b>DATED:</b> August 6, 2004
<b>FOR:</b>	<b>BILLING METHOD IN ELECTRONIC SWITCH IN A CELLULAR NETWORK</b>	

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE**

Sir:

In response to the Office Action dated May 7, 2004, please consider the following remarks.

---

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to the: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 6, 2004.

Dated: August 6, 2004

  
\_\_\_\_\_  
Paul J. Farrell

## REMARKS

Reconsideration of this application is respectfully requested.

This application has been reviewed in light of the Office Action dated May 7, 2004. Claims 1-5 and 8-26 are currently pending in the application. It is gratefully acknowledged that the Examiner has allowed Claims 11-22.

In the present Office Action, the Examiner has now rejected Claims 1-3, 8-10, and 23-26 under 35 U.S.C. § 102(b) as being anticipated by *Wittstein et al.* (U.S. 5,631,947), and Claims 4-5 under 35 U.S.C. § 103(a) as being unpatentable over *Wittstein* in view of *Smolik* (U.S. 6,381,455).

As Claims 1, 8, 23, and 24 are the remaining rejected independent claims of the application; the following analysis will focus primarily upon them.

As indicated above, independent Claims 1, 8, 23, and 24 have been rejected as being anticipated by *Wittstein*. More specifically, the Examiner is asserting that *Wittstein* teaches all the recitations of these claims. For the Examiner's convenience, Claims 1, 8, 23, and 24 are presented below and currently read as follows:

1. (Previously Presented) A method of billing service in an electronic switch in a cellular network system, comprising the steps of:

setting a time when a service initiation request or a service resumption request is generated as a service start time and initiating a call;

setting a service suspension request time as a service end time upon generation of a service suspension request by the system during the service and suspending the service;

sending billing data including the service start time and the service end time in the service suspended state, and determining whether a service resumption request is generated; and

ending the service when a service termination request is generated in the service suspended state.

8. (Previously Presented) A method of billing service in an electronic switch in a cellular network system comprising the steps of:

calculating a service suspended period whenever a service suspension occurs during a service and accumulating service suspended periods; and

constructing billing data, including a final service suspended period being the accumulated value of service suspended periods and sending the billing data to a billing processor, when the service ends, wherein service suspension periods are interruptions of service by the system.

23. (Previously Presented) A billing method in an electronic switch in a cellular network system, comprising the steps of:

counting the number of service suspension occurrences generated during a service, constructing billing data including the count value, and sending the billing data to a billing processor, via a call processor; and

producing a total service suspended period by multiplying the number of service suspension occurrences by an average service suspended period, subtracting the total service suspended period from an overall service period, and billing a subscriber for a resulting normal service period, wherein service suspension occurrences are interruptions of service by the system.

24. (Previously Presented) A billing method in an electronic switch in a cellular network system, comprising the steps of:

calculating a service suspended period during a service in progress; and

billing a subscriber for a normal service period resulting from subtracting the calculated service time period from an overall service period,

wherein the service suspended period is an interruption of service by the system.

While *Wittstein* arguably teaches a method for crediting a bill for a dropped call, it is respectfully submitted that this method in no way anticipates the methods of the present invention as recited in Claims 1, 8, 23, and 24. The method in *Wittstein* as cited by the Examiner (column 18, line 50 to column 19, line 11) reads as follows:

Another problem with mobile telephones is that the calls can be "dropped" or interrupted by local interference or other causes. Normally, part of a minute of "air time" is charged for by the mobile phone system as if it were a full minute.

In some cellular phone systems, a time delay is provided (e.g., 10 seconds) between the time when the connection is broken and when the connection is dropped, so that if the user presses the "SEND" button on his phone, the company will give him credit for the last minute of the call. Then, the user must dial the call again.

The preferred telephone of the present invention does not have a "SEND" button. However, credit is given for the last minute of a dropped call by use of the answer detect circuit 97 (FIG. 4) to detect the hang-up of the called party, and using that detection to identify a completed call and differentiate it from a dropped call. When the hang-up signal is not detected, credit is given to the user for the last minute of the dropped call. Also, the computer 70 is programmed to develop a "SEND" signal and send it to the cellular system so that the lessor of the telephone (e.g., the hotel or car rental company) also gets credit for the last minute of the dropped call.

The answer detect circuit 97 is well-known, and in view of the disclosure above, the programming steps to implement the incoming call control and dropped call credit features are well within the skill of the art to provide.

As can be seen from the Examiner's cited section of *Wittstein*, *Wittstein* clearly does not recite all of the steps, if any, as recited in Claims 1, 8, 23, and 24. *Wittstein* merely credits a last

minute of a call after a call drop. There are no setting, calculating, or counting steps as recited in Claims 1, 8, 23, and 24 of the present application. For example, Claim 1 recites setting a time when a service initiation request or a service resumption request is generated as a service start time and initiating a call, and setting a service suspension request time as a service end time upon generation of a service suspension request by the system during the service and suspending the service; Claim 8 recites calculating a service suspended period whenever a service suspension occurs during a service and accumulating service suspended periods; Claim 23 recites counting the number of service suspension occurrences generated during a service, constructing billing data including the count value, and sending the billing data to a billing processor, via a call processor, and producing a total service suspended period by multiplying the number of service suspension occurrences by an average service suspended period, subtracting the total service suspended period from an overall service period, and billing a subscriber for a resulting normal service period; and Claim 24 recites calculating a service suspended period during a service in progress, and billing a subscriber for a normal service period resulting from subtracting the calculated service time period from an overall service period. It is respectfully submitted that *Wittstein* as cited by the Examiner, teaches none of these recitations. Therefore, it is respectfully submitted that the Examiner is incorrect.

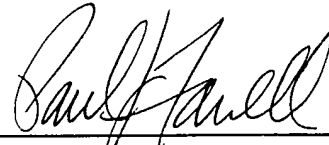
Further, the Examiner has again rejected Claim 23 with the same argument as used with Claim 1. However, as presented in our previous response of February 23, 2004; Claim 23 does not even recite similar recitations as those in Claim 1. Therefore, it is respectfully submitted that the Examiner has failed to make a proper rejection of Claim 23.

Accordingly, it is respectfully submitted that independent Claims 1, 8, 11, 16, 21, 23, and 24 are in condition for allowance. Further, with independent Claims 1, 8, 11, 16, 21, 23, and 24 in condition for allowance, then at least because of their dependence upon these claims, respectively, it is respectfully submitted that dependent Claims 2-5, 9-10, 12-15, 17-20, 22, and 25-26 are also in condition for allowance.

Additionally, it is noted that Claims 6 and 7 have not been withdrawn from consideration, as indicated by the Examiner. Claims 6 and 7 were cancelled without prejudice in the amendment of November 27, 2002.

In view of the preceding remarks, it is respectfully submitted that all pending claims, namely Claims 1-5 and 8-26, are in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicant's attorney at the number given below.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Paul J. Farrell", is written over a horizontal line.

Paul J. Farrell  
Reg. No. 33,494  
Attorney for Applicant

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PJF/DMO/lah